

## EE 491 Weekly Report | May15-01 | Week 2 (9/15/14 - 9/22/14)

<b>Advisors:</b> Adam Literski, Dr. Ajjarapu	<b>Client:</b> Black & Veatch Corporation
<b>Members (roles):</b> Matt Backes (Team Leader), Ryan Jerve (Communications Leader), Faran Malik (Communications Leader), Sohail Suryavanshi (Webmaster), Bhargav Gouni (Key Concept Holder), Kiran Rane (Key Concept Holder)	
<b>Project Title:</b> 69kV / 12kV Substation Design Project	

### Weekly Summary:

The main goal this week was to get familiar with transmission substations. We had our second meeting with Dr. Ajjarapu and our first meeting with Adam Literski. In this meeting, we discussed some initial questions we had regarding our senior design project. After the meeting, Adam sent us Black and Veatch substation design information. Our goal this week is to familiarize ourselves with this material.

### Meeting Notes:

#### 9/17 Group Meeting with Advisors

We met with Dr. Ajjarapu and Adam Literski on 9/17. We introduced ourselves and Adam told us a little bit more about the scope of our project and explained some of the material that he sent to us. He also gave a brief explanation of substations. Along with this, our group developed a list of questions to ask and we got our questions resolved by Dr. Ajjarapu and Adam during the meeting. For now, Adam would like us to research and familiarize ourselves as much as possible with transmission substations and the documents he has sent us. Lastly, Adam will look into possibly 3D printing our final transmission substation.

#### 9/21 Group Meeting

During our weekly team meeting, we discussed our findings from the material that Adam and Dr. Ajjarapu sent us. As a group, we went over the high and low level one line diagrams in AutoCAD and familiarized ourselves with the symbols utilized in the diagrams. Moreover, we went over protective components such as circuit switchers, surge arrestors, etc. We also analyzed each transformer and its purpose in the one-line diagrams. Along with this, we assigned different tasks to each team member for this week:

- Bhargav: Create a description document for equipment
- Matt: Create a Gantt Chart
- Faran & Ryan: Look up info on sectionalized radial buses
- Sohail: Start working on the website
- Kiran: Create draft of project plan

Additionally, we have decided to switch up the task of creating the agenda. As a team building activity, we have also decided to go out for dinner on Wednesday this week.

### Pending Issues:

1. Continue researching transmission substations
2. Develop an engineering man-hour budget after we have gotten ourselves familiarized with the material and what exactly we need to do

**Plans for Next Week:**

1. Continue familiarizing ourselves with transmission substations
2. Work on our individual tasks
3. Get some of our questions answered by Dr. Ajjarapu and Adam Literski during our meeting
4. Dinner

**Current Individual Contributions**

- Matt Backes: Attended weekly meeting with Dr. Ajjarapu and Adam Literski, Research/Reviewing documents (3 hour)
- Faran Malik: Attended weekly meeting with Dr. Ajjarapu and Adam literski, worked on weekly report, Research/Reviewing documents (3.5 hours)
- Ryan Jerve: Attended weekly meeting with Dr. Ajjarapu and Adam literski, worked on weekly report, Research/Reviewing documents (3.5 hours)
- Sohail Suryavanshi: Attended weekly meeting with Dr. Ajjarapu and Adam literski, Research/ Reviewing documents (3 hour)
- Bhargav Gouni: Attended weekly meeting with Dr. Ajjarapu and Adam literski, Research/Reviewing documents (3 hour)
- Kiran Rane: Attended weekly meeting with Dr. Ajjarapu and Adam literski, Research/Reviewing documents, Group Meeting Leader (2 hour)

**Total contributions for the project:**

- Matt Backes (6 hours)
- Ryan Jerve (6.5 hours)
- Faran Malik (6.5 hours)
- Kiran Rane (5.5 hours)
- Sohail Suryavanshi (5.5 hours)
- Bhargav Gouni (5.5 hours)